drawings or described in the specification. The Examiner asserts that Claim 19 is not understood. The Examiner asserts that Claims 3-20, 24-29 do not begin properly because they depend from Claim 1 which claims "a storage device". The Examiner asserts that Claim 22 is indefinite because it depends from Claim 21 which recites that the receiving member is "metal, wood or plastic". The Examiner asserts that Claim 30, a method claim, is indefinite because it recites no method steps.

In response, the applicant has rewritten all claims to define the invention more particularly and distinctly so as to overcome the rejections under 35 U.S.C. 112 and define the invention patentably over the prior art.

In response to the Examiner's assertion that the last two lines recited in Claim 2 lines 4—5 "capable of supporting a direct load" are not understood as it is not described in the specification, Applicant respectfully submits that on Page 8 line 3, the application recites "(i) a body portion capable of directly supporting a load".

Applicant acknowledges the Examiner asserts that the Examiner does not understand the phrase "capable of supporting a direct load". Applicant has amended the phrase on page 8 line 3 to now read: "a storage device insertion member comprising in combination, (i) one or more rigid elongated body portions capable of directly supporting an object and its resulting load". Applicant respectfully submits that this amendment does not add new matter and is solely for the purpose of clarification.

New Claim 31 reads: A storage device support member comprising, in combination, one or more rigid elongated body portions capable of directly engaging an object to be stored and being capable of supporting the load exerted by said stored object. A retention device rigidly attached, or integral to said body second end of said storage device support member, comprising a cargo control track insert having upper and lower notches which define adjacent one or more resilient fingers which extend beyond the opposing edges of a receiving member receptacle in the form of

a cargo control track opening. Said extending resilient fingers capable of being oriented within the cargo control track opening in a predetermined manner, a positive engagement latch is movably mounted upon the retention device, movable between a notch blocking position and a release position. When in said notch blocking position, said positive engagement latch restricts the depth of one of said notches to retain the retention device within a cargo control track opening, and when in the release position increases the depth of said one notch to permit the storage device to be removed from the track opening. Positive engagement latch operating means mounted on said retention device selectively enabling moving said positive engagement latch between said notch blocking and release positions.

Applicant respectfully submits that the phrase "capable of supporting a direct load" would be clear to one, "skilled in the art." The foregoing not withstanding, Applicant has amended the phrase in order to be more understandable in accordance with the Examiner's suggestion. To a Mechanical Engineer (one skilled in the art), the phrase capable of supporting a direct load would be understood to mean that a structure is endowed with the ability to support an object which has mass, and that accelerating forces acting upon that object (gravity, centripetal force, magnetic force, etc) would create a load. Thus the formula F = ma means Force = mass multiplied by acceleration, therefore, the phrase "capable of supporting a direct load" is the concise version of the new phrase "capable of directly supporting an object and its resulting load" in the specification page 8, line 4.

On pages 2-3 of the July 20, 2000 Office Action, the Examiner rejects Claim 3 under 35 USC 102(b) as being clearly anticipated by Ehrlich.

Applicant respectfully submits that the instant invention is distinctly different than any references cited and that the instant invention was not on sale (and was not sold) by the applicant or any other party more than one year prior to the date application number 9/303,530 was filed.

The references cited by the Examiner forming the basis for rejection under 35 U.S.C. 103(a) stating that the Ehrgott invention is obvious citing Cox, Ehrlich, Stroh, Klekar, Vander Hoek et al. and Poole. (With regard to the proposed combination of Cox and Ehrlich)

On page 3 of the July 20, 2000 Office Action, the Examiner rejects Claims 1,2,4-25,27,28,30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox in view of Ehrlich.

The Examiner notes that the Body portion 40 of Cox is "capable" of supporting cantilever or direct load and asserts that it would have been obvious to substitute the retention device of Ehrlich, which is the same as applicants, for that of Cox to provide a more secure attachment.

Applicant respectfully submits that the fact that both references teach a cargo control related device is not sufficient to gratuitously and selectively substitute parts of one reference for a part of another reference in order to meet Applicant's novel claimed combination. Further, these references do not individually or in combination produce the results of the instant invention.

On page 3 of the July 20, 2000 Office Action, the Examiner rejects Claim 26 under 35 USC 102(b) as being clearly anticipated by Stroh.

On page 3 of the July 20, 2000 Office Action, the Examiner rejects Claim 29 under U.S.C. 103(A) as being unpatentable over Cox in view of Ehrlich as applied to Claim 1 above, and further in view of Klekar. The Examiner asserts that it is obvious in view of figure 6 and 7 of Klekar that the receiving member can be either horizontal or vertical in orientation.

The patents to Vander Hoek et al and Poole are cited to show similar structures.

In response, Applicant respectfully submits that rejections cited in paragraphs 4-9 of the July 20, 2000 Office Action are unsupported. Applicant has responded by describing the referenced patents and how they differ from and fail to teach the Applicant's invention. The descriptions of referenced patents follow the legal references forming the basis for allowance under U.S.C. 103.

With regard to the proposed combination of Cox, Ehrlich, Stroh, Klekar, Vander Hoek et al and Poole, it is well known that in order for any prior art references themselves to be validly combined for use in a prior art §103 rejection, the references themselves (or some other prior art) must suggest that they be combined. E.g. as was stated In re Sernaker, 217 U.S.P.Q. 1.6(C.A.F.C. 1983). Prior art references in combination do not make an invention obvious unless something in the prior art references would suggest the advantage to be derived from combining their teachings. That the suggestion to combine the references should not come from applicant was strongly stated in Orthopedic Equipment Co. v. United States, 217 U.S.P.Q. 193, 199 (CAFC 1983). "It is wrong to use the patent in suit (here the patent application) as a guide through the maze of prior art references, combining the right references in the right way to achieve the result of the claims in suit (here the claims pending). Monday morning quarterbacking is quite improper when resolving the question of nonobviousness in a court of law (here the PTO)."

As was further stated in Uniroyal, Inc. v. Rudkin-Wiley Corp., 5 U.S.P.Q. 2d 1434 (C.A.F.C. 1988), "where prior-art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself...Something in the prior art must suggest the desirability and thus the obviousness of making the combination." (Emphasis supplied.)

In line with these decisions, the Board stated in Ex parte Levengood. 28 U.S.P.Q. 2d 1300 9P.T.O.B.A.&I. 1993): "In order to establish a prima facie case of obviousness, it is necessary for the examiner to present evidence, preferable in the form of some teaching, suggestion, incentive or inference in the applied prior art, or in the form of generally available knowledge, that one having ordinary skill in the art would have been led to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention...That which is within the capabilities of one skilled in the art is not synonymous with obviousness....That one

can reconstruct and/or explain the theoretical mechanism of an invention by means of logic and sound scientific reasoning does not afford the basis for an obviousness conclusion unless that logic and reasoning also supplies sufficient impetus to have led one of ordinary skill in the art to combine the teachings of the references to make the claimed invention ... Our reviewing courts have often advised the Patent and Trademark Office that it can satisfy the burden of establishing a prima facie case of obviousness only by showing some objective teaching in either the prior art, or knowledge generally available to one of ordinary skill in the art, that "would lead" that individual "to combine the relevant teachings of the referenced"... Accordingly, an examiner cannot establish obviousness by locating references which describe various aspects of a patent applicant's invention without also providing evidence of the motivating force which would impel one skilled in the art to do what the patent applicant has done."

As stated in the Levengood case: "That one can reconstruct and/or explain the theoretical mechanism of an invention by means of logic and sound scientific reasoning does not afford the basis for an obvious-ness conclusion unless that logic and reasoning also supplies sufficient impetus to have led one of ordinary skill in the art to combine the teachings of the references to make the claimed invention.

Accordingly, Applicant respectfully submits that the rejection on page 3, paragraph 4 of the July 20, 2000 Office Action is overcome.

Ehrlich does not teach what the examiner relies upon it as supposedly teaching. The Examiner claims: "Clearly anticipated by Ehrlich''. The Ehrlich patent 5,752,791 May 19, 1998 is not in conflict with the present application, as it does not deal with the inserted anchor device itself, neither does it provide an extended body portion in the form of a hook or bracket to directly support a load. Rather, the Ehrlich patent deals expressly with the receiving member aperture, which is circular in shape. Ehrlich's invention expressly solves the problem of the twisting of cargo control straps, which by their very nature exert a tension load on the retention device and

receiving aperture. Further the circular aperture would not be "capable" of supporting a cantilever load (see definitions page for definition of cantilever load), it would be impossible for it to do so "directly" without inserting the instant invention. The force on an extended arm is cantilever, the forces transmitted back to the receiving aperture are either tension, or compression forces. It would be impossible to produce a cantilever load on a flat aperture. Further, the circular shape would not provide resistance to twisting, and therefore, would not be as good a choice as the rectangular receiving aperture as that of common cargo control track as a receiving device for the instant invention. Applicant's invention solves a different problem than the reference and such problem is recited in the claims.

Applicant respectfully submits that the rejection on page 3, paragraph 5 of the July 20, 2000 Office Action is overcome.

Even if all the referenced patents were to be combined, the proposed combination would not show all of the novel physical features of Claims 31 through 41. New Claims 31 through 41 are a fortiori, incorporating additional clarification and definition of the subject matter which makes them a fortiori and independently patentable over these references.

The present invention is a combination invention and can be compared to prove acceptability as being patentable to Patent Number 4.475,855 Crissy, et al. Cargo Control Cart Anchor.

The Crissy invention claims a cargo control anchor device which has a clamping member very similar to a wood working clamp attached pivotally to a cargo control retention device. The synergistic result is a device which quickly anchors to cargo control track, allowing the narrow use as a clamping restraint, stabilizing, but not supporting a transport cart.

According to the present application, the combination of the non patented retention device shown in drawing sheets 8, 9 and 10 and described in figures 17, 18 and 19 reference number 212, referred to as a common series E/A spring loaded fitting, is given a new and novel use

through the attachment of a hook shape, figure 17 reference number 214. A double hook shape figure 18 reference number 216, and a stabilizer tab reference number 218.

The Crissy invention does not suggest, or teach the non-pivotal attachment, or direct support of an object, through the attachment of the device to a cargo control track, and therefore, is not in conflict with the instant invention. The Crissy invention does, however, present a compelling analogy to the instant invention. The Crissy invention shares the compatibility of using cargo control track as an anchoring receiver receptacle through its direct pivotal attachment to a retention device at one end and to a clamping device at its second end, endowing it with a new, novel, patentable use. Similarly the instant invention shares the use of cargo control track as an anchoring receiver receptacle, but unlike any previous cargo control track device, its rigid attachment at only one end to a rigid elongated body section or sections, endows the present invention with the narrow use as a device which through direct contact with an object, can support the resulting load of the object and support the stored object aloft, not simply restrain the load with or through secondary support devices or measures.

In the instant, application drawing sheet 10, Figure 19, various other hook shapes reference numbers 220,224, and 226. The synergistic result of which is clearly illustrated on drawing sheet 12 Figure 21 where through the addition of rigidly attached elongated body members, the devices are given a new and novel use of being capable of directly supporting an object and its resulting load. The devices which horizontally extend from the wall directly support a cantilever load. A cantilever load is exerted by placing an object "directly on'' the extended arm or arms. Through the action of gravity said object produces a vertical load on the arm. This creates a tension load at the top of the retention device and a compression load at the bottom. This is the classic definition of a cantilever load.

In the instant application where the hooks are supported from the ceiling, Drawing Sheet 13, Figure 24, Reference Number 226, these would be under a tension load, as well as directly supporting an object and its resulting load.

Previous devices exhibit the use of retention devices which cannot directly support a load without the secondary temporary attachment of a strap, beam, or the permanent non-rigid attachment of a strap, beam or clamping device. All of these devices exert either tension loads, or in the case of beam devices supported at both ends, a shear load at each end of the beam. The applicant has not found, nor has the examiner presented evidence of a pre-existing device which is fitted with an insertion member comprising (i) an elongated body portion capable of "directly" supporting an object and its resulting load, either cantilever load or tension load incorporating at its second end a retention device portion capable of being stably inserted into the receiving member receptacle of cargo control track. Further, certain permutations of the present invention may also include a stabilizing tab, drawing sheet 9, Figure 18 reference number 218 which creates interference with the surface of the receiving member cargo control track, and thereby limits movement of the storage device.

Applicant respectfully submits that the rejection on page 3, paragraph 6 of the July 20, 2000 Office Action is overcome. The cited reference does not teach what the Examiner relies upon it as supposedly teaching. Cox, W.L., Patent Number 5,807,047 September 15, 1998, Ehrlich, Patent Number 5,752,791 May 19, 1998.

First, the retention device of Ehrlich is not the same as Applicants, as addressed earlier in the rejection on page 3, paragraph 4. The Ehrlich invention addresses a round receiving member, not a rectangular one, and does not provide the insert portion, or retention device at all.

Second, the body portion of Cox would not be compatible with the round receiving members of Ehrlich. Spacing would not be the same as the rectangular opening illustrated in Cox, making it impossible to insert the rectangular retention assist device of Cox in the round

receiving holes of Ehrlich. Further, the Cox invention is expressly designed to be used with a support beam which is supported at both ends. Further, the Cox invention is not a support device at all, but a secondary locking device which straddles the latch on the ends of the beam and prevents it from bouncing up and becoming dislodged. The Cox invention does not, and would not lock in the slot without interacting with a beam member used in conjunction with it. The Cox invention would not, on and of its own, support any object, or load. It is purely a secondary capture device to prevent upward movement of the end of a beam from becoming dislodged in an upward direction. The load is carried by the beam itself and the ends of the beam are pivotal to allow insertion in the receiving member and, therefore, only function as a pair in shear load to support the beam. This device would not support a cantilever load. If the beam were cut in the center, the portions extending from the wall would fall.

It is clearly stated in Cox 5,807,047 page 7 paragraph 3, line 60 "the retaining bracket 40 does not support the beam 30 and *does not support any load* on the cargo beam by the cargo".

Even if the inventions of Cox and Ehrlich were combined as suggested by the examiner, they would not function. Applicant therefore raespectyfully submits that combining Ehrlich and Cox is not legally justified and is therefore improper and that the rejection of these references is improper and should be withdrawn.

Also, applicant submits that the novel features of the present invention are unobvious and hence patentable under U.S.C. 103(a) since they produce new and unexpected results over Cox and Ehrlich, or any combination thereof.

In addition, Applicant respectfully submits that the following cited references are distinguishable: Stroh, Klekar, Vander Hoek et al, Poole, Haire, Winstel, Arvidssan, Vom Braucke et al., Stroh, Patent Number 3,730,108 May 1, 1973

In the Stroh Patent an adjustable shelving structure is described which includes horizontally extending shelf support brackets which are proprietary, and only compatible with the also supplied proprietary vertical upright posts.

This is an extremely limited invention. It does not provide for compatibility with a horizontally oriented support post or track, nor does it provide for vertical or horizontal support tracks, which can be attached to a wall or other supporting surface in addition to the supplied vertical free-standing support member. The vertical support members described do not offer receiving receptacle openings on more than one side of said uprights. The Stroh invention does not offer any other insertion member support devices other than a shelf bracket, which is further limited as being described as horizontally extending brackets intended to support wire shelves. This invention does not offer plurality of elongated body sections, to accommodate and support directly, the many tools and items directly supported in the instant invention. The Stroh invention insertion member is provided with three outwardly projecting lugs designed with a downwardly projecting hook portion only. No upwardly projecting hook or finger portion is provided to extend beyond the upper limit of a hole or opening. This design would be very limiting if a horizontal receiver member track were supplied. It would require three rows of openings along its length instead of one as in cargo control track. In summary, the Stroh invention is limited in scope, use and flexibility. It is more definitive of a particular way to assemble a finite shelving structure, than it is about building new structures which expand the use of a larger, more diverse system of storage and cargo restraint devices.

This invention neither resembles, nor teaches the plurality, compatibility, synergy and flexibility which the instant invention embraces. Through the invention of new, novel devices, the enhancement of an existing cargo control and restraint industry system, is adapted to offer storage capabilities. The storage support devices provided by the instant invention, are compatible with the free standing box tube member having receiver holes on all four faces, as

well as existing cargo control beam support, restraint devices and cargo control track as provided by the instant invention.

The Klekar patent (4,033,268 July 5,1977) illustrates a specialized type of end fitting which is compatible with three different types of track designs. It is specifically designed to be used in pairs at the opposing ends of a shoring bar or beam. The nature of supporting a beam is such that the forces generated are primarily straight downward from the load, and straight upward due to bouncing or jostling. The fittings cannot rotate in a pivotal manner down and away from the wall as a result of the beam being supported at both ends. Therefore, the end fittings of Klekar do not have to address a cantilever force as encountered by the applicant's invention. Therefore, you will find upon closer examination that the end fittings of Klekar have a lower flange, or notch defined by a finger and a pin or latch used to restrict straight upward disengagement of the fitting from the receiving member opening. These fittings are made to address the shear loads found at the end of a beam type load.

Conspicuously missing from the Klekar fittings is any type of upwardly extending finger or other capture device to prevent the upper part of the fitting from escaping from the receiving member opening if subjected to a cantilever type load, where the top of the fitting would be under a tension load. If the center of the beam were cut, both ends would pivotally drop, offering no support for a cantilever load supported from one end as in the instant invention. The Klekar invention does not demonstrate or teach the instant invention.

The Vander Hoek patent (4,171,789 October 23, 1979) specifically addresses a new type of latching, or locking device which purpose is to provide a detent mechanism which holds the latch device in an unlocked position when engaged, enabling one to remove the furniture unit from the vertical support without having to simultaneously manually hold the latch in an unlocked position. The latch and the support further include an automatic release system which automatically releases the detent when the unit is first hooked into the support, whereby the latch

automatically snaps into its locked position. Further the invention is limited to use as a shelf support for use in a furniture system.

The Vander Hoek invention is not compatible with cargo control track and only demonstrates compatibility with a vertically oriented proprietary dedicated type of receiving member. No horizontal support member is supplied. It does not demonstrate a provision for any other shape of support device to directly support objects. Its sole purpose is to support a shelf. In contrast, the instant invention does require that the user simultaneously hold the latching member in the unlocked position both to insert and remove the retention device from the cargo control track receiving member opening, and demonstrates a much wider use, providing a greater plurality of devices. Therefore, the instant invention does not infringe on the Vander Hoek invention, nor does the Vander Hoek invention teach the novel applications of the instant invention.

The Poole, Jr Patent (5,788,192 August 4, 1998), Portable Splicing Rack and apparatus to secure a bracket. The Poole device uses a proprietary dedicated, specially shaped receiving member opening which has a T-shaped opening. The brackets shown are retained in the T-shaped slot by inserting a corresponding T-shaped insertion member through the wider horizontal top of the slot and then lowering the T-shaped end section into the lower narrower section of that T-shaped slot. After insertion, a latch mechanism is slideably actuated through the turning of a screw, which exerts pressure on a nut which is allowed to pivot in a recess, while the threads of the screw disengage themselves from a threaded block which is forced into position in the upper area of the T-shaped slot to prevent lifting and therefore removal of the support arm from the T-shaped slot.

This invention is quite limited in use and very specialized to a cable splicing application. The changing of position of the support arms is limited to a vertical dedicated track section, latching and unlatching of the support arms requires a tool, and would be slow and tedious as

compared to the instant invention which requires no tools to operate the latch. Further, only one tube or support bracket is provided with a very specialized, restricted use. The arms are also provided with plastic caps to insulate them for the defined use of splicing electrical cables. Use of the receiving member's vertical track sections is limited to being pivotally attached to a supplied support frame.

There is no provision for compatibility with horizontally or vertically oriented track members which can be attached to a supporting surface, or a free standing vertical member with receiver openings on all four sides. There is only one flattened support bracket provided, and no compatibility with cargo control track or other greater system of pre-existing track or restraint or support devices suggested. The Poole patent does not teach the ease of use or the scope of the instant invention.

The Haire invention (5,934,849 Aug 10, 1999) proposes a new way of anchoring, attaching, and installing cargo control track. It deals primarily with the recessed installation of said cargo control track in the walls of vehicles constructed utilizing panels made of wood, plywood or fiberglass reinforced materials including fiberglass, reinforced plywood (FRP) and fiberglass reinforced polymers or plastics. The main object of Haire's invention is to provide secure, recessed attachment of cargo control track to reduce the use of through the wall fasteners, and reduce water seepage and decay of said wall panels, without significantly reducing cargo space. The Haire invention provides an attachment method for securing cargo control track to a supporting structure. As such, it demonstrates a singular specialized area in the category of cargo control track devices.

The Haire invention further demonstrates and justifies the patentability of the instant invention, as the instant invention demonstrates a unique category and expands the use of the plethora of devices which make up the category: Cargo Control Track compatible devices and

systems, which includes the use and application for cargo control track, cargo control track mounting methods and cargo control track retention devices.

The instant invention provides a number of novel new uses including cargo control track support devices which directly support an object and its resulting load, through direct contact with the object at one end and its second end incorporating a cargo control track retention device. The instant invention also provides for a box tube receiving member which has receiving member receptacles on all four sides.

Haire's invention does not provide or reference the compatibility of storage devices such as those described in the instant invention, but rather acknowledges prior art devices such as cargo restraint straps. The Haire invention is very limited in scope and does not provide or suggest the advantages of the instant invention.

Winstel's patent (5,785,475 Jul 28, 1998) is a variation of a cargo restraint bar, similar in function to the Klekar device, but incorporating a different retention device at its ends. It is clearly stated in the abstract "Latch members are attached at the outer ends of the telescoping tubes for attaching the cargo retainer across the width of a vehicle's cargo compartment. The latch members preferably pivot about an axis normal to the axis of the cargo retainer".

This wording translates to: this is a beam type structure attached and supported at both ends, which means the ends are subject to shear type forces. Further, should the center portion be cut, the ends being pivotal would be incapable of supporting a cantilever load and the two severed portions would fall. Winstel's invention being round, or tubular in shape, is not well suited for supporting an object aloft. It is designed instead with the primary function of restraining cargo from sliding, as illustrated in Figure 5. Winstel's invention does not solve or suggest an application as a storage device, which directly interacts with and supports an object and its resulting load, while supported at only one end as the applicant's invention does.

The load carrier of Arvidsson's patent (5,524,803 June 11, 1996) uses proprietary rail support members and beam type moveable cross supports to offer support for objects on top of a vehicle. One end of the longitudinal beam type load support is permanently pivotally attached to allow the longitudinal beam support member to fold into the side support members. This invention does not demonstrate a member able to directly support an object or load while supported at only one end. It does not offer multiple positions of attachment. It does not suggest a device compatible with cargo control track, and the support members are permanently pivotally attached to the side support members at one end. This does not allow for quick easy removal or multiple positioning. This reference does not teach or suggest the instant invention.

The Vom Braucke et al Patent (4,880,192 Nov 14, 1989), Handled Tool Suspension Device, relies on an S and C shaped hook, which is pivotally attached to allow movement of the hook. The hook supports the handle portion of a single object within the hook by at least three points of contact and is held in place through friction with the handle of the object. Further, the mounting method is though a horizontally extending (only) proprietary dedicated rail member. No provision for a vertical member or freestanding member is suggested. The hook mount block has to be slideably inserted from the ends of the rail allowing an infinite indefinite number of positions. The instant invention does not support objects through friction, but through direct contact with the undersides of some portion of the object, thereby opposing gravity and holding the object or objects aloft. Some of the support devices of the instant invention will support more than one object on a singular support device; the Vom Braucke et al device will only support one object per hook with no provision to hold multiple objects. Further, in the instant invention, elongated support members are not pivotally connected, but rigid or integral with the retention device. The retention device is not slideably attached in a proprietary rail system which requires other adjacent hooks and their respective stored objects be removed before removing said hook. Rather, the instant invention uses cargo control track to offer a finite number of

receiver openings and positions with the advantage of not having to remove adjacent hooks and their respective stored objects in order to remove and reposition any hook on the cargo control track. Further, the Vom Braucke et al invention describes a single device, which would not provide all of the benefits of the instant invention. This invention is extremely limited in scope and does not teach or share the benefits of the instant invention.

Applicant respectfully notes the following laws of physics and commonly accepted engineering terms in order to more clearly define and differentiate the subject matter, which the applicant regards as the invention. And to clearly establish a consistent basis of what is accepted practice to one "skilled in the art" as it applies to the present invention: Load is defined as a force acting upon an object or the weight borne up by a structure. Force is defined as F=ma. Force equals mass multiplied by acceleration. Mass, in physics, is the quantity of matter in a body as measured in its relation to inertia. Mass is determined for a given body by dividing the weight of the body by the acceleration due to gravity. Weight is defined as the attraction of a material body or object's mass by gravitational pull toward the center of the earth. Rigid is defined as not bending or flexible, unyielding, stiff. In mechanical engineering there are three basic types of load forces, tension, compression and shear. Tension Load is defined as the stress on a material produced by the pull of forces tending to cause extension. Compression Load is defined as the stress on a material produced by the push of forces tending to cause compression. Shearing Stress is defined as the action or force causing two contacting parts or layers to slide upon each other, moving apart in opposite direction parallel to the plane of their contact. Cantilever Load is defined as and commonly referred to by mechanical engineers as a device which constitutes a structure that is supported at only one end and capable of supporting a load. A cantilever device is capable of supporting a load and constitutes an elongated projecting arm supported at only one end. Both criteria must be met however, and the lack of provision of an

extended or elongated projecting arm or structure supported at only one end would render the capability of support of a load in a cantilever manner moot.

Therefore: In the instant invention, the load exerted by a supported object is the force of gravity, motion, inertia, centripetal or magnetic forces acting upon the mass of said supported object. The instant invention is thereby exerting a load on the supporting structure, defined as one or more elongated body portions capable of directly engaging through direct contact with said object, and being capable of supporting the load or force exerted by said object, and the only means of support being through attachment at only one end of said support structure a retention device rigidly attached or integral to said support structure. Further, said structure will support loads of the cantilever type and of the tension type while providing support of said object through direct contact.

It has been Applicant's finding that all pre-existing cargo control track compatible devices are designed with cargo restraint or stacking in mind. Previous devices exhibit the use of retention devices which cannot support objects through direct engagement with the object and the capability of supporting the load exerted by said object while supported at only one end, whether that load exerts either a cantilever load or a tension load.

Previous devices exhibit the use of retention devices which cannot directly support a load without the secondary temporary attachment of a strap or beam, or the permanent attachment of a strap, beam or clamp device. Also prior art devices exert either tension loads, or in the case of rigid beam devices supported at both ends, a shear load at each end of the beam.. The applicant has not found and the Examiner has not presented another storage support device comprising a body portion capable of directly supporting an object and its resulting load attached to a retention device portion capable of being stably inserted into the receiving member receptacle of cargo control track.

SUMMARY

The present invention solves a problem not previously recognized. Most, if not all of the prior patent art, falls into two categories; those associated with cargo control in the trucking, railroad and shipping industries, and those concerning themselves with storage and shelving devices. Perhaps due to lack of exposure to the needs of a market not closely associated to either of these two industries, neither of these groups recognized the need for an invention such as the instant invention. The cargo control people are dealing with solving the problem of restraining and supporting cargo, not individual storage and organization of tools and small unpackaged items. The storage and shelving device people primarily concern themselves with shelving systems, or separate systems or individual devices which are designed for storing small quantities (one tool per hook) and light weight inexpensive devices which they could sell to the general public for use in static, non moving environments. It was the applicant's awareness of the shortcomings of existing devices which led to the invention of the storage devices of the present invention, which are: stronger, lock in place, include permutations capable of holding more than one tool, are quick and easy to remove or relocate without the need for tools, can be removed without removing adjacent support devices and the items stored on adjacent support devices, are capable of supporting stored objects directly through contact with rigidly attached elongated member(s), and are provided with the ability to support the load associated with said object through attachment at one end to a cargo control track retention device. The said storage devices can support a cantilever load, can support a tension load, in certain applications are fitted with stabilizing tabs which solve the problem of horizontal motion relative to the vertical orientation of the retention device, offer a plurality of shapes and applications to hold rakes, shovels, hoses, electrical cords, shelves, gasoline powered string trimmers, spare tires and more. There is compatibility of cooperating with cargo control track, which is available in both horizontal and vertical configurations.

The simple shapes and uncomplicated appearance of the instant invention belies the many problems it solves. Cargo control track and accompanying devices have existed for fifty years or more, and some of the references made by the examiner referencing storage and shelving devices date to 1973 Stroh, 3730108, 1977 Klekar, 4033268, 1979 Vander Hoek et al 4171789. Some of these inventions are over twenty years old. Certainly, if the instant invention were obvious, those "skilled in the art" would have solved all the problems which the instant invention does, but they don't.

Further, the instant invention proposes a metal box tube member supplied with receiver openings on all four sides identical to those found in vertical and horizontal cargo control track, which is

basically two dimensional and must be secured to a surface to offer support to the inserted storage devices. The box tubing with receiver openings creates, for the first time, the possibility of using both the storage control devices proposed in this patent application, and through cooperation with pre-existing cargo control devices, allows integration between standard wall supported vertical and horizontal cargo control track and the proposed free standing box tube members, as illustrated on Drawing Sheet 13 in figure 23. In summary, the benefits of the instant invention in combination are:

1. Compatibility with common cargo control track, which already enjoys an economy of scale in the railroad and trucking transport industries which makes it readily available, relatively inexpensive and obviates the need of providing proprietary dedicated track receiving member devices.

2. The expanded use of available cargo control devices through direct compatibility, allowing the user to purchase pre-existing cargo control devices and use them along side the storage system devices provided by the present invention. There is no need to deal with two or more different systems.

3. Easy, fast removal with no tools required, and repositioning of individual storage devices without necessitating the removal of adjacent devices and their respective stored objects.

4. The plurality of shapes and applications of holding rakes, shovels, hoses, electrical cords, shelves, gasoline powered string trimmers, spare tires, plus the system compatibility of prior art devices which support beams, offer tie down anchor points, retention straps, cart clamping devices, cargo restraint bars, and numerous mounting devices, tracks and track mounting techniques have a synergistic effect upon all prior art devices, as well as making the new devices more attractive as they in combination constitute a more complete and integrated system of storage and cargo control than any single device or system presented by the examiner.

Lack of Implementation

If the invention were in fact obvious, because of its advantages, those skilled in the art surely would have implemented it by now. The fact that those skilled in the art have not implemented the invention, despite its great advantages, indicates that it is not obvious.

Strained Interpretation

The examiner has made a strained interpretation of the patents referenced that could be made only by hindsight.

Unsuggested Modification

The prior art lacks any suggestion that the reference should be modified in a manner to meet the claims. The invention does in fact supply a new principle of operation, as no pre-existing device compatible with cargo control track provides the exact and important functions that the present invention solves.

Applicant's invention solves a number of different problems, as compared to the inventions referenced by the Examiner, and the public would be deprived of an important new use and advantage of the storage capabilities in combination with pre-existing cargo control capabilities had this invention not been made. In fact, the present invention may well have a synergistic

beneficial effect on the entire industry and businesses, which provide retention devices and cargo control accessories compatible with cargo control track. As a result of expanding the use and installation of track for use with the present invention's devices, the installation of more track encourages those using this system to seek out the inventions of prior art inventors to help them solve other needs within a compatible system of devices.

Finally, Applicant therefore submits that the combining of the referenced patents is not legally justified and is therefore improper and should be withdrawn. Applicant respectfully requests, if the claims are again rejected upon any combination of references, that the Examiner include an explanation, in accordance with M.P.E.P. § 706.02 Ex parte Clapp 27 U.S.P.Q. 972 (P.O.B.A.1985) and Ex parte Levengood. supra. a "factual basis to support his conclusion that it would have been obvious" to make the combination.

CONCLUSION

For all of the reasons stated, Applicant respectfully submits that the specification and claims are now in proper form and that the claims are patentable over the prior art.

Therefore, Applicant respectfully submits that the application is now in condition for allowance, respectfully solicits favorable action on all pending claims, namely Claims 31-41.

If for any reason this application is not believed to be in full condition for allowance, applicant respectfully requests the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. 706.03(d) and 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

A Supplemental Information Disclosure Statement is attached and submitted herewith.

In the event that there are any questions concerning this Amendment, or the application in general, the Examiner is respectfully urged to telephone the undersigned so that prosecution of the application may be expedited.

No fee, other than the $445.00 fee for a three-month extension of time, is deemed necessary in connection with the filing of this Amendment.

Respectfully submitted,
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By: _____ 1/22/2001
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